

REMARKS

I. Status of the Application

Claims 1-20 are pending in this application. In the July 30, 2004 office action, the Examiner:

- A. Objected to the Specification for what amounts to be an informality;
- B. Objected to claim 7 because of informalities;
- C. Rejected claim 1-17 under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite;
- D. Rejected claims 1 and 4 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,682,383 to Dahod et al. (hereinafter "Dahod");
- E. Rejected claim 18 and 20 under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,475,383 to Ohta et al. (hereinafter "Ohta"); and
- F. Deemed claims 2, 3, 5, 6 and 19 as allowable if rewritten in independent format; and
- G. Deemed claims 7-17 allowable if rewritten to overcome the indefiniteness rejections.

In this response, applicants have amended the specification and have amended claims 1-18 to clarify the claimed inventions, and thereby address the indefiniteness rejections. Applicants respectfully traverse the anticipation rejections of claims 1, 4, 18 and 20 in view of the foregoing amendments and the following remarks.

II. The Objections to the Specification are Moot

The Examiner objected to the abstract of the disclosure “because the applicant failed to provides the US application number cited under the cross reference related applications”.

The “Cross Reference” section of the application has been amended to provide the appropriate application number. The amendment does not constitute new matter. In particular, the application as filed referenced the cross-referenced application as “Attorney Docket No. Raamot 13-7,” and further stated that the cross-referenced application has the same inventors, and was filed the same day. These three elements plainly and uniquely refer to U.S.

Application Serial No. 09/748,565. U.S. Application Serial No. 09/748,565 was filed on December 22, 2000, had the same inventors, and was plainly referenced as attorney docket no. Raamot 13-7.

Because the Application has been amended as required by the Examiner, and because the amendment does not constitute new matter, it is respectfully submitted that the objection to the specification and/or abstract is moot and should be withdrawn.

III. The Objection to Claim 7 is Moot

The Examiner objected to claim 7 because “a unilateral path” appeared multiple times in the claim as originally filed. Claim 7 has been amended to remove multiple instances of “a unilateral path”. It is therefore respectfully submitted that the rejection of claim 7 is moot and should be withdrawn.

IV. The Indefiniteness Rejections are Moot

The Examiner rejected claims 1-17 as allegedly being indefinite because the indices “n”, “i”, and “j” were allegedly unclear. Applicants respectfully submit that each of the letters “i” and “j” clearly represented an index value, which represented a way to associate elements that bore those index values. Such index values were included for ease of reference. However, Applicant has removed these index values “i” and “j”, and the value “n” to address the Examiner’s objections. It is respectfully submitted that the indefiniteness rejection is now moot and should be withdrawn.

V. The Rejections Over Dahod Should Be Withdrawn

In the July 30, 2004 office action, the Examiner rejected claims 1 and 4 over Dahod. As will be discussed below in detail, Dahod fails to teach, show or suggest each and every element of either of the claims. As a consequence, it is respectfully submitted that the anticipation rejection of claims 1 and 4 are in error and should be withdrawn.

A. The Present Invention

Claim 1, both as amended as originally filed, is directed to a method for use in a switching system having a plurality of ports with each of the ports being coupled to a local area network via a Hub. The connectivity between the inputs and outputs of the n ports form first and second matrixes of cross points, each cross point in the first matrix establishing a unilateral communication path from a source port to a destination port, each cross point in the

second matrix providing a complementary connection from the destination port to the source point. Thus, in other words, a cross point of the first matrix transmits signals from a first port to a second port, while a corresponding cross point of the second matrix transmits signals from the second port to the first port.

The method establishes a transmission operation from a first Hub to a second Hub. The first Hub is coupled to a first source port and the second Hub is coupled to a first destination port. The method includes a step of activating a first cross point in the second matrix to establish a first unilateral path from the first destination port to the first source port. The method also includes detecting, via the first unilateral path connection, whether the second Hub is idle. Thus, in other words, part of the connection (from destination to source) is made to allow listening to see if the hub is idle. The method further includes generating a collision signal at the first source port when the second Hub is not idle.

B. Dahod

Dahod discloses an arrangement for interconnecting groups of users into collision domains in a local area network. The arrangement includes a plurality of repeater groups, each group connected to a group of user terminals. The arrangement also includes a configurable switch matrix. The switch matrix connects different repeater groups into collision domains.

C. Dahod Does Not Teach Connecting Two Ports to Test Idleness of a Hub

Dahod fails to teach, show or suggest “activating a first cross point in the second matrix to establish a first unilateral path from the first destination port to the first source port and detecting, via the first unilateral path connection . . . whether the second Hub is idle”, as called for in claim 1. While it does appear that Dahod teaches forming a collision domain out of several groups of terminals as discussed by the Examiner at pages 3-4 of the July 30, 2004 office action, Dahod does not discuss making a cross point connection to determine if a hub is idle.

In particular, the Examiner does not allege specifically where Dahod teaches such detection of collisions using a cross point of the switch matrix to connect a destination port to a source port. The Examiner only cites the Abstract and col. 3, lines 11-44 of Dahod, which generally describe connecting the user groups into collision domains. (July 30, 2004 office action at pp.3-4). Moreover, after careful review of Dahod, it is submitted that Dahod does not in fact teach or suggest activating a cross point in a matrix to establish a unilateral path from the destination port to the source port to detect whether the destination hub is idle. The only detailed discussion of the generation of collision signals is in Col. 6 of Dahod, and that discussion does not suggest or teach activating a cross point to detect idleness.

Furthermore, it is not clear that Dahod teaches the connection of two hubs into a single collision domain at all. The “repeater groups” do not appear to constitute or include hubs.

For any of the foregoing reasons it is respectfully submitted that the rejection of claim 1 over Dahod is in error and should be withdrawn.

D. Claim 4

Claim 4 depends from and incorporates all of the limitations of claim 1. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that the rejection of claim 4 over Dahod should be withdrawn.

VI. The Rejections Over Ohta Should Be Withdrawn

In the July 30, 2004 office action, the Examiner rejected claims 18 and 20 over Ohta. As will be discussed below in detail, Ohta fails to teach, show or suggest each and every element of either of the claims. As a consequence, it is respectfully submitted that the anticipation rejection of claims 18 and 20 are in error and should be withdrawn.

A. The Present Invention

Claim 18, as amended, is directed to a switching arrangement that includes a first matrix of cross points, and a plurality of cross point control circuits, each control circuit associated with a cross point. Thus, each cross point of the first matrix of cross points has an associated control circuit.

B. Ohta Teaches Only a Single Master Control Circuit

Ohta fails to teach or suggest a switching arrangement that includes “a plurality of cross point control circuits, each cross point control circuit operably coupled to controllably activate an associated cross point of the first matrix”, as called for in claim 18. Instead, as

shown in Fig. 3, Ohta teaches a single control circuit (output controller 8) for all of the cross points of the matrix.

The use of a single controller can limit the speed with which connections are made between pairs of ports. In particular, if all requests for switching are made through a single controller, switching may be delayed in large matrices, due to queuing of switch requests. Such delay can prevent the ability to make a physical layer connection through the switching arrangement. By contrast, the present invention employs separate control circuits for different cross points of the matrix, which allows for simultaneous processing of multiple switching requests, and is thus more suitable for accomplishing physical layer switching. The ability to perform switching at a speed suitable for physical layer connectivity is one of the stated advantages of at least some embodiments of the invention. (See, e.g., Specification at pp.4-5).

Ohta does not teach separate control circuits for different cross points of a first matrix. Accordingly, Ohta fails to teach or suggest each and every element of the invention. As a consequence, it is respectfully submitted that the rejection of claim 18 over Ohta is in error and should be withdrawn.

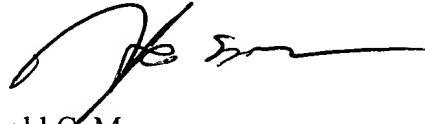
C. Claim 20

Claim 20 depends from and incorporates all of the limitations of claim 18. Accordingly, for at least the same reasons as those set forth above in connection with claim 18, it is respectfully submitted that the rejection of claim 20 over Ohta should be withdrawn.

VII. Conclusion

For all of the foregoing reasons, it is respectfully submitted the applicants have made a patentable contribution to the art. Favorable reconsideration and allowance of this application is, therefore, respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'H. C. Moore', with a long horizontal flourish extending to the right.

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